

AMENDMENTS TO CLAIMS

Amend Claim 1, at line 10, by deleting " at least one of the ", and insert -- multiple -- .

Amend Claim 1, at line 11 after "sample", insert -- and for simultaneous extraction of the multiple analytes -- .

Amend Claim 1, last line after " directly ", by inserting -- , and additionally comprising means for shielding the fibers from the atmosphere, such that the fibers are drawn up inside the shield means, providing a tight fit between the fibers and the shield, and the extracted analytes are shielded from volatilizing into the atmosphere -- .

Cancel Claims 2-6.

Amend Claim 10, at line 7, by deleting " at least one of the ", and insert -- multiple -- .

Amend Claim 10, at line 7 after " sample, ", insert -- and for simultaneous extraction of the multiple analytes -- .

Amend Claim 10, last line, after " occurs ", by inserting -- , and
(c) drawing the fibers up inside a shield means providing a tight fit between the fibers and the shield, such that the extracted analytes are shielded from volatilizing into the atmosphere -- .

Cancel Claims 15, 25 and 26.

Complete Listing of all of the Claims

Claim 1 (currently amended) An apparatus for carrying out solid phase microextraction of target analytes included in a fluid or a solid sample, comprising gas tight enclosure means for receiving the sample before the enclosure is made gas tight, means located within the enclosure means for extracting the target analytes from the sample, and means located outside of the enclosure means for chemically desorbing the target analytes by solvent extraction by a micro-volume of solvent, wherein the extraction means includes a solid support in the form of multiple fibres which may be coated or uncoated, the fibres and/or the coating being selected, based upon selectivity of the fibres and/or coating for at least one of the multiple analytes present in the sample, and for simultaneous extraction of the multiple analytes, and wherein the extraction means either samples a head space near the sample or samples the sample directly, and additionally comprising means for shielding the fibers from the atmosphere, such that the fibers are drawn up inside the shield means, providing a tight fit between the fibers and the shield, and the extracted analytes are shielded from volatilizing into the atmosphere.

Claims 2-6 (canceled)

Claim 7 (previously presented) An apparatus according to Claim 1, wherein the coating is an organic material selected from the group consisting of polyethyleneglycol and methoxy polyethyleneglycol, silicone, polyimide, divinylbenzene, polyacrylate, carbon-based sorbents and ion-exchange materials.

Claim 8 (previously presented) An apparatus according to Claim 1, wherein the fibers are of a material selected from the group consisting of fused silica, graphite, solid polymers and metals.

Claim 9 (previously presented) An apparatus according to Claim 1, wherein the fibres are of fused silica, and the coating is of silicone.

Claim 10 (currently amended) A method for solid phase micro extraction of analytes included in a fluid or a solid sample, comprising

- (a) exposing a fluid or a solid sample including target analytes in a gas-tight enclosure, to a solid support in the form of multiple fibers which may be coated or uncoated, the fibers and/or the coating being selected based upon selectivity of the fibers and/or coating for at least one of the multiple analytes in the sample, and for simultaneous extraction of the multiple analytes for a sufficient time to permit chemical extraction of the analytes by the fibers to occur, wherein the multiple fibers either samples a head space near the sample or samples the sample directly, ~~and~~
- (b) ending said exposure and then placing said solid support into a micro volume of solvent where chemical desorption of the analytes from the support occurs, and
- (c) drawing the fibers up inside a shield means providing a tight fit between the fibers and the shield, such that the extracted analytes are shielded from volatilizing into the atmosphere.

Claim 11 (canceled)

Claim 12 (canceled)

Claim 13 (previously presented) A method according to Claim 10, wherein the solvent is a suitable organic solvent.

Claim 14 (previously presented) A method according to Claim 10, wherein the chemical extraction is by absorption or adsorption of the target analyte by the fibers or coating.

Claim 15 (canceled)

Claim 16 (previously presented) A method according to Claim 10, wherein the fibers are uncoated.

Claim 17 (previously presented) A method according to Claim 16, wherein the fibers are of fused silica.

Claim 18 (previously presented) A method according to Claim 10, wherein the coating is an organic material selected from the group consisting of polyethyleneglycol, methoxypolyethyleneglycol, silicone, polyimide, divinylbenzene, polyacrylate, carbon-based sorbents and ion-exchange materials.

Claim 19 (original) A method according to Claim 18, wherein the coating is silicone.

Claim 20 (previously presented) An apparatus according to Claim 1, wherein the fibers are solid fibers or hollow fibers .

Claim 21 (previously presented) An apparatus according to Claim 20, wherein the coatings are selected from absorption- and adsorption-type coatings.

Claim 22 (previously presented) An apparatus according to Claim 20, wherein the coatings are identical or different.

Claim 23 (previously presented) An apparatus according to Claim 20, wherein the fibers are hollow fibers, coated on the outside or the inside.

Claim 24 (currently amended) A method according to Claim 10, including the additional step of

~~-(e)~~ (d) storing and archiving the microvolume of solvent containing the dissolved analytes until a convenient time for analysis.

Claim 25 (canceled)

Claim 26 (canceled)

Claim 27 (previously presented) An apparatus according to Claim 1, wherein the extraction means is positioned to sample a head space near the sample.

Claim 28 (previously presented) An apparatus according to Claim 1, wherein the extraction means is positioned to sample the sample directly.

Claim 29 (previously presented) A method according to Claim 10, wherein the multiple fibers are positioned to sample a head space near the sample.

Claim 30 (previously presented) A method according to Claim 10, wherein the multiple fibers are positioned to sample the sample directly.

Claim 31 (previously presented) An apparatus according to Claim 1, wherein the extraction means is positioned to sample both a head space near the sample and to sample the sample directly.

Claim 32 (previously presented) A method according to Claim 10, wherein the multiple fibers are positioned to sample both a head space near the sample and to sample the sample directly.